CHAPTER 3

DEVELOPING THE SOCRATIC CLASSROOM: METAPHORS OF ENGAGEMENT IN DIALOGUE

Much of education is focused on the achievement of certain basic skills and knowledge. This focus can be attributed to a commonly held view of education that raising the general level of IQ of children through the teaching and learning of thinking skills together with some knowledge of the world will assist them as future adult citizens. Beyond the '3Rs' literacy and numeracy are now the cornerstones of learning. The aim of many governments is to ensure that all students gain at least the minimum standard of literacy and numeracy so that they overcome educational disadvantage, and that it is crucial for children to develop these foundational skills at the earliest possible time in their school years. This picture of education draws attention to a comparable need to ensure that all students gain a minimum standard of being 'socratic'. My use of this term builds on Cam's (2006) observation that if school leavers were more-or-less illiterate and innumerate there would be an outcry, but in "contrast, students actually do leave our schools basically *insocratic*, and it is barely noticed" (p.1). As previously mentioned the merits of being socratic include: "the ability to think about the issues and problems that we face in our lives, to explore life's possibilities, to appreciate alternative points of view, to critically evaluate what we read and hear, to make appropriate distinctions and needful connections, and generally to make reasonable judgements" (p.1). What Cam is saying is that the education system has the responsibility to develop people's ability to engage in dialogue with the aim of developing their capacity to think for themselves. Put another way, schools need to promote *being socratic*.

This chapter extends on what we have previously outlined on Socratic pedagogy. To avoid nit-picking over what to include and what not to include in a list of identifying features that will inform us of the precise nature of the Socratic Method, this chapter will instead provide a focus for defining an approach to teaching through dialogue that has relevance to modern educational theory and practice. Dialogue is viewed in this way as multi-dimensional thinking, comprised of three interactive modes of thinking, which are critical, creative and caring. This will set the tone for the remainder of the book. In order to arrive at this point, we draw attention to the inter-relationship of *elenchus* and *aporia* inherent in the Socratic Method,[1] which we recognise as the interaction of critical and creative thinking. But all three modes of thinking need to be in play to be an effective Socratic pedagogy. In a multi-dimensional account of Socratic pedagogy there is more recognition of the interdependence in thinking collaboratively, which is one of the hallmarks of Socratic practice. Therefore, the metaphors used to describe the

Socratic dimensions of engaging in dialogue for each of the three models of dialogue are examined here. We begin by looking at the Community of Inquiry and the notion of letting the argument lead. In particular we pick up on Lipman's metaphor of a chamber orchestra as being analogous to how the Community of Inquiry works as it passes through the various stages in the pattern of inquiry from initiating, suggesting, reasoning and conceptually exploring, evaluating and concluding. His metaphor is best suited as a metaphor for creative thinking within a framework of multi-dimensional thinking. We then move onto Socratic Dialogue, which due to its specific structure, is depicted as an hourglass. That is: beginning at the top, where it is widest, with a universal question, toward the narrow waist to depict consensual articulation of a definition and the particularisation of the universal, to the bottom where it is wide again representing further dialogical analysis to undermine or falsify the definition. As a metaphor for critical thinking the hourglass is very effective. We then turn to Bohm who likens dialogue to a collective dance of the mind. Just like dancers who have awareness of their own movements and the movements of the other, dialogue is a collaborative activity that relies on such awareness. For Bohm, listening and self-reflection are the keys to dialogue and this is reflected in his metaphor. His analogy helps us to understand caring thinking better.

In the final part of this chapter we will point to the relationship between critical, creative and caring thinking in all three models of dialogue in order to provide a framework for discussions on Socratic pedagogy in the chapters to follow.

THE SOCRATIC CLASSROOM

Socrates' belief in understanding through dialogue is at the root of Socratic pedagogy and the creation of a Socratic classroom. Socratic pedagogy is defined by its emphasis on rigorous questioning and dialogue as a deliberative education tool. Robert Fisher (1995a) has this to say about educating Socratically.

> To educate, for Socrates, could not simply be a question of transfer of knowledge. Education was an activity of mind, not a curriculum to be delivered. To be involved in learning in a Socratic sense is to be involved in a personal drama, for it depends both on critical thinking and emotional commitment. It has both a rational and a moral purpose, it exists to engender intellectual virtue, a thinking that engages and develops the learner as an individual and as a member of a learning community. (p.25)

To appreciate Socratic education and pedagogy fully we need to take a look more closely at the Socratic Method.

The term critical thinking is often used to describe the Socratic Method. Some of the research into critical thinking describes it as primarily a rational skill for problem-solving (Catrambone & Holyoak, 1989; Needham & Begg, 1991). This view is held by Lindop (2002), who argues that the effectiveness of the Socratic Method is due to its concentration on conceptual exploration. He notes that "in any branch of philosophy, care for the meaning, for connecting concepts that should be

connected, distinguishing what should be distinguished and realizing the role of context in appraising meaning are all preconditions for serious consideration of substantive philosophical questions" (p.37). Lindop is correct to point this out. However, it is not uncommon for philosophy to be mistakenly understood as exclusively an enterprise of conceptual development and analysis, and thus failing to see the richness of philosophy as pedagogy. We have already pointed to de Bono for his criticism of philosophy, which he makes synonymous with the Socratic Method, as overly critical in its approach. He warns that philosophy promotes adversarial thinking in the classroom and thus stifles creative thinking, while advocating for a creative and more effective approach to problem-solving "with emphasis on possibility and designing forward" (1994, p.vii). But de Bono fails entirely in acknowledging that philosophy is not "intrinsically fascist in nature, with rigid rules, harsh judgements, inclusion and exclusion, category boxes and judgements, and a high degree of righteousness" (p.6). What may appear to be embedded in the Socratic Method and hence philosophy itself, may be due to a misunderstanding of philosophy or misuse of philosophical pedagogy. He raises this point himself: "if a method is so easily abused and so rarely used 'properly' that method is faulty and there is little point in saying that it ought to be used 'properly'" (p.32). His admission is confusing. If understood in terms of multi-dimensional thinking philosophy can equally place emphasis on 'possibility and designing forward', as de Bono claims of his parallel thinking and lateral thinking. The assumptions that underpin de Bono's views of philosophy, which he himself fails to uncover, create misunderstanding that subsequently translates into teaching practices not in accord with Socratic practices.

Unlike de Bono, Lindop understands philosophy as the care for meaning and for connecting concepts, which broadens its application to include intellectual processes such as the setting of criteria, argument formation, making distinctions, categorizing, classifying, and their relationship to logic and reasoning. Nevertheless, Lindop's emphasis is still on critical thinking as primarily a rational skill for problem-solving, which some theorists argue is too narrow as it ignores the support of creative thinking (Duemler & Mayer, 1988; Slade, 1992). Extending on this, some researchers have shown that critical and creative thinking are inseparable and work simultaneously (Paul, 1994). Reich's view of the Socratic Method as essentially consisting of *elenchus* and *aporia* falls under this category. The *elenchus* is the process of questioning that Socrates engages with to elicit confusion from his fellow inquirers. Through his careful questioning, the respondents begin to cast doubt on the validity of their opinions, and eventually contradicting themselves, leaving them baffled as to their own ignorance on matters that they previously considered to have had knowledge. This state of confusion that results is the *aporia*. When the respondent has reached *aporia* both Socrates and his fellow inquirer can begin to search for truth from a position where previously held assumptions, mistaken for knowledge, have been exposed. The use of *elenchus* and *aporia* is a vital part of the dialogical process and inherently pedagogical (Reich, 1998). *Elenchus* encourages the exploration of assumptions, bringing participants to a position of doubt or wonder where certainty of judgment

is suspended. *Aporia* provokes them to search for truth or meaningfulness through dialogue. In the classroom, the teacher takes on the role of Socratic facilitator, but the overall aim is that each participant takes on the role of Socrates as well as the role of his interlocutors.

The use of *elenchus* to bring about *aporia* illustrates also the inseparable interplay of critical and creative thinking in the dialogical process. *Elenchus* encourages us to be critical of our own thinking and the thinking of others. In turn, critical thinking gives rise to *aporia* and provokes creative thinking, which in turn encourages critical thinking and so forth. Engaging in this dialogical process provides opportunities for meaning to be created. This view, while still not fully encapsulating what is meant by Socratic practice does, nonetheless, recognise thinking critically as both convergent and divergent thinking. Convergent thinking is the process of assessing, evaluating, judging, concluding and implementing. Nelson's metaphor of the hourglass (described later) illustrates the process of problem-solving as convergent thinking. However, once through the narrow waist of the hourglass thought again becomes divergent. Divergent thinking defines creative thinking. It is that ability to modify, adapt and create ideas. Together, they produce an act of synthesis by putting thoughts together to *reconstruct* new ones.

Robert Fisher (1995a) highlights the importance of creative thinking to the Socratic Method. He notes that philosophical inquiry enlists multiple dimensions of thinking, which among other things enables the enhancement of creative thought. He draws parallels between the creative thinking required in philosophical inquiry and Albert Einstein's view that "[t]o raise new questions, new problems, to regard old problems from a new angle requires creative imagination, and makes real advances" (p.23). The collective generation of new ideas from a situation that the group has found to be problematic is inherently a creative process that facilitates the reconstruction of ideas; from previous assumptions to the exploration and development of ideas to a renewed understanding of the initial problem. The generation of ideas, therefore plays a vital role in the reconstruction of thinking which is central to philosophical inquiry. Oliver Wendell aptly describes the process as: "[t]he mind once stretched by a new idea, never regains its original dimensions" (in Fisher, 1995, p.24). The UNESCO study proposes that education should allow for approaches to pedagogy that create thoughtful students. If we can agree with Fisher and Wendell that philosophy is, among other things, an inherently creative endeavour with the purpose of 'stretching the minds' of students, then Socratic pedagogy cannot be overlooked as a prerequisite for good thinking and its improvement.

Talk of critical and creative thinking as crucial to engaging in philosophy and philosophical inquiry can eclipse discussion on the importance of community, which cannot be overlooked when considering philosophy as first and foremost dialogical. While there are phases of inquiry, both critical and creative, these are underpinned by the connections that each participant has to others in an inquiry. A large amount of the literature devoted to Socratic practices fail to fully appreciate the connections between people in inquiry, but instead focuses on the connection between the critical and creative phases of inquiry. If we agree that inquiry is to

occur in a community, then it is remiss to simply make assumptions concerning the connections between inquirers. It is for this reason that I share the perspective of philosophical thinking as multi-dimensional thinking. There is still much to learn about multi-dimensional thinking. A substantial amount of research on thinking and meta-cognition comes from the field of psychology where definitions are substantiated by experimental methods. It is hardly surprising to see thinking as characteristically a rational skill for solving problems—with emphasis on the cognitive over the affective and social components. Philosophers, on the other hand, while not ignoring the empirical research, verify their definitions through theoretical analysis. My view of Socratic pedagogy as multi-dimensional thinking is based on such an analysis. Lipman (1991) is foremost as a scholar in this area, although alongside him there are others who have contributed to a greater understanding of the multi-dimensionality of thinking (Siegel, 1988; Ennis, 1993; Paul, 1993; Costa, 2001). Lipman (2003) reformulated his theory of multi-dimensional thinking (which prior to then he called higher-order thinking) as the interaction of three modes of thinking, which now includes caring thinking.

Note that in the chapters that follow we will explore in more detail critical, creative and caring thinking as interdependent components of multi-dimensional thinking necessary to Socratic pedagogy. As a preface to these chapters, the remaining sections will give an overview of the pedagogical dimensions of each of the three models of dialogue, and their relationship to the critical, creative, and caring components of multi-dimensional thinking.

ENGAGING IN DIALOGUE

To understand what makes each of the models of dialogue Socratic we need to identify the features that they have in common and what makes them distinct in terms of engaging in dialogue. This will allow us to draw some conclusions about where they may be useful for the enhancement of multi-dimensional thinking and hence Socratic pedagogy. By looking at the metaphors used to describe each model of dialogue this will allow us to discern the most significant aspects of inquiry. But before we proceed with our inquiry we need to clarify what engagement means when we use the term in regard to the phrase: ‘engaging in dialogue together’. Simply put, it is where the learning happens. Daniel Shephard (2005) tells us that engagement is ‘remarkable interaction’; it is where we can identify what is most remarkable in a process. A brief view of the synonyms for engagement reveals it to be an appointment, assignation, date, rendezvous, or tryst. These words denote a commitment to appear at a certain time and place. It can also mean a promise to do something in the future; the act of sharing in the activities of a group, to involve oneself, or to become occupied, to participate; to attract or hold attention, to draw into; to interlock or cause to interlock; to assume an obligation. In the context of engaging in dialogue nearly all of the meanings of the word are appropriate. Literally, engaging in dialogue means being ‘committed to appear at a certain time and place’ where we all come together to ‘share in the activities of the group’ for the sole purpose of ‘participating’ in inquiry. Figuratively, engagement as

participation is to be 'drawn into' or 'interlocked' in a shared activity. Engagement can be cognitive or affective, and happens at a personal, psychological and social level. Indicators of successful engagement in dialogue include: the interweaving of speech and silence that accompanies questioning and problem-solving activities; the exploration of agreement and disagreement marked by self-correction; the use of analysis and reasoning to evaluate arguments; and the inter-psychological practices that are progressively internalised by the participants as described by Vygotsky's theory of social construction. Engagement in dialogue is what we strive for in Socratic classrooms. It is *the commitment to finding meaning and to progress towards truth in collaboration with others*.

Integral to engagement in dialogue is reconstruction, which I will briefly mention here as an introduction to later chapters. When students are genuinely engaged in collaborative dialogue they are effectively undergoing a process of questioning, self-correcting, and rebuilding—also described as reconstruction. Golding (2002) talks about the confusion that sometimes comes with a process such as this. It is an illustration of the rebuilding of thoughts through a 'to-ing and fro-ing' of *elenchus* and *aporia;* a process of openness to renewed meanings, of replacing or modifying previous ways of thinking and knowing. Put another way, when we are engaged in collaborative dialogue we are making connections between what we are learning and the people with whom we are learning, which leads us to reconstruct the way that we think. All three theorists, Lipman, Nelson and Bohm, have foremost in their minds the reconstruction of thinking. Underpinning this challenge is the development of intellectual and social dispositions and capacities necessary for active citizenship. Again, we can see the relevance to the UNESCO study, which stresses the importance of reconstruction in bringing about individual and social change.

THE PEDAGOGICAL DIMENSIONS OF DIALOGUE

In this part we will explore some of the metaphors that have played a significant role in shaping our understanding of what is typical of Socratic practices. I refer specifically to engagement in dialogue and its facilitation. First, we will revisit the metaphors used to describe Socrates' questioning techniques. Second, in order to locate the pedagogical dimension of each of the models of dialogue we will explore the metaphors used by Lipman, Nelson, and Bohm, all of whom emphasised various pedagogical components that could be described as typically Socratic. These differences have important practical implications for the practice of Socratic pedagogy.

Socratic Facilitation: Midwife, Gadfly or Stingray?

Chapter 1 gave a very brief description of the images used to illustrate Socrates' questioning techniques and ways of philosophising: as a kind of gadfly, a self-stinging ray, and intellectual midwife. Let us firstly address Socrates as gadfly. This term was used by Plato in the *Apology* for Socrates who upset the status quo

by posing unsettling questions in an attempt to stimulate provocation. It fits well Socrates' own maxim that 'The unexamined life is not worth living'. He proved to be an irritant to unreflective citizens who, unlike Socrates who had no pretensions to knowledge, believed they knew and understood things that they did not really know or understand; "*to sting people and whip them into a fury, all in the service of truth*." It draws attention to the close critical analysis that is required in the Socratic Method. In effect, what the metaphor alludes to is Socrates' ability to draw his interlocutors into dialogue where they are no longer able to go about their everyday lives without thought. But it also makes other more far-reaching assertions; that by beginning the process of examining life our lives will be disrupted so that we continually ask questions about social reality and accepted moral and political opinion. Once a person seeks truth in their life it is not so easy to return to ignorance. This is illustrated wonderfully in the film *The Matrix*. Keanu Reeves' character Neo takes a red pill in order to discover the truth about his own existence. Once the pill is taken he cannot but open his eyes to the truth. He can no longer turn a blind eye to the source of his own existence; that reality is an illusion designed to placate humans while they are actually agents of slavery and deception. Despite the actions of his fellow crusader, Cypher, who takes the blue pill to return to a state of ignorance, Neo remains committed to truth despite the fact that it is a far more difficult life that he's chosen, affirming the idea that the unexamined life is not worth living. In a contemporary setting the gadfly can describe someone who persistently challenges people in positions of power, the status quo or popular opinion.

Historically, references to the gadfly have been used in both an honourable and pejorative sense. The term was used by Plato to describe the relationship of Socrates as a provoker of the Athenian political scene, which he compared to a slow and dim-witted horse. Similarly, in *The Bible* there are references to the gadfly also in terms of political influence. The Book of Jeremiah states "Egypt is a very fair heifer; the gad-fly cometh, it cometh from the north." The term continues to be used to describe people, such as social commentators and investigative reporters, who ask provocative questions aimed at politicians and other public figures. The most common interpretation of this kind of provocative questioning is 'fault finding'. But this is misleading. To illustrate this we need to look no further than what Reich (1998) calls 'notorious American college law classes'. Lecturers who claim to use the Socratic Method are actually using a 'cold-calling' technique of questioning, i.e., asking questions to put students on-the-spot or for the sake of catching students out without an answer. In terms of educational aims and practices the use of the gadfly should be in a positive light. This is so because as classroom pedagogy it stands as metaphor for liberating students to lead a thoughtful, reflective life.

In *Meno* Socrates is called a stingray (or torpedo fish). This image sets out to show that Socrates makes his articulate interlocutors numb. They are left speechless that they could not answer his challenge on an issue that they had previously thought they knew or understood very well. Socrates himself is also left perplexed that he had no answer to such a seemingly simple question about something so basic. This image extends beyond that of the gadfly, and is much

more powerful as a metaphor for Socratic questioning as peculiarly philosophical. The numbness from the self-stinging ray represents a person's speechlessness at being genuinely philosophically perplexed, even though they may have engaged in many discussions over the same issue with many others before. Unlike the gadfly image which represents the questioning of social and political realities, the self-stinging ray is an image of philosophy as inquiry into matters so basic as the meaning of common words where consensual articulation of a definition seem elusive so that even everyday words and expressions may be undermined. Philosophical questioning, like the self-stinging ray, leaves us perplexed, but we must be persistent in our questioning—to 'sting' us out of complacency. In terms of Socratic pedagogy, the educational aim of engaging in philosophical inquiry is so that students don't choose complacency over reflection and thoughtfulness. In terms of life-long learning, it is even more applicable as persistence for reflection and a commitment to having an inquiring mind.

Now, onto the image of Socrates as midwife "whose dissolution of the prejudices and prejudgements of his interlocutors helps them towards the revelation of their own thoughts" (Arendt, in Villa, 1999, p.206). The midwife image illustrates the inducement of perplexity which is portrayed as the labour of philosophical childbirth (Matthews, 1999, p.91). This view of Socratic Method is particularly important to Socratic pedagogy as it represents inquiry as a specific kind of questioning technique, that of a philosophical midwife to aid philosophical childbirth, which is "presumably the delivery of a viable philosophical theory, doctrine, or analysis" (p.91). While it is not the task of the philosophical midwife to produce knowledge (Socrates is ignorant, represented by the midwife as barren), the result of facilitative questioning is the birth of productive ideas. In other words, the interlocutor develops the capacity to seek truth through the facilitation of philosophical questioning. This is reflected in the Platonic dialogues when Socrates brings his interlocutors through a series of stages of inquiry. Initially the inquirer cannot give rise to a definition of a particular concept, but through Socrates' careful guidance, tacit knowledge of the concept is uncovered.

A midwife in the literal sense of the word is a person responsible for the prenatal care, support and eventual assistance to the birthing procedure. The mother, of course, is the one who gives birth. The midwife in most cases is a traditional 'birth attendant'. Socrates makes the connection between the role of midwife and facilitating a dialogue as the ideas come from the inquirer themselves and cannot be transferred as knowledge, in the same way that a birthing practitioner can aid in the delivery of the baby but is there in the role of *attendant* as opposed to the role of the mother, who is essentially responsible for the birth itself. This is arguably the most referred to metaphor to describe the Socratic Method which originally featured in Plato's *Theatetus.* In the Socratic classroom, the metaphor of the midwife is integral for identifying how we should facilitate inquiry. However, it is, as we have seen, not the only metaphor used to depict the process of inquiry. The gadfly and the stinging ray, which are often interpreted as adversarial aspects of the method, are important for our interpretation of Socratic pedagogy. For example, when we are 'giving birth' to new ideas, this must be balanced with a critical rigor

that is reflected in the self-stinging ray image. After all, as Gardner (1995) says, dialogue is not mere conversation, it is hard work! It is not enough to generate ideas without balancing this with critical reflection and evaluation. The metaphor of the gadfly as a persistent irritant is similarly important here as this pertains to the commitment required in inquiry and the persistence that is sometimes required in order to explore disagreements as well as agreements.

The images of philosophical midwife, a kind of gadfly, and a self-stinging ray are not the only metaphors used to describe philosophical inquiry that is typically Socratic. For Lipman, the images of an orchestra and chamber music are what he considers best describes how the Community of Inquiry works. For Nelson's Socratic Dialogue, the hourglass represents the consensual articulation of a definition through rigorous conceptual analysis, evaluation and judgment. For Bohm, his method of dialogue is represented as a dance. It is to these metaphors that I shall now turn, keeping in mind that the metaphors of Socrates, particularly that of the midwife, as illustrative of the facilitation inherent in Socratic pedagogy.

The Pedagogical Dimensions of the Community of Inquiry

The Community of Inquiry has been variously described by drawing attention to the role of the teacher in running classroom discussion as a 'facilitator of inquiry'. Included in some of the descriptions are a number of metaphors to illustrate this role: provoker, motivator, facilitator, coach, and some even reminiscent of Socrates the gadfly and midwife.[2] Take the following example by Felicity Haynes.

> The children are the musicians, making the music, providing the content as they develop and refine their musical expertise. The teacher facilitates and guides, providing form to the piece or offering philosophical direction by the provision of open questions. (Haynes, 1997, p.17)

Reed also uses the theme of making music, but emphasises more heavily the role of the teacher as conductor.

> The teacher who is running a classroom discussion might view herself or himself as an apprentice conductor of an orchestra of skilled musicians. As conductor, she or he leads, but that leading is always based upon cues received from the members of the orchestra. (Reed, 1991, p.152)

These images aid as illustrations of the role of the teacher in guiding philosophical progress in open inquiry. The teacher is the conductor, the participants the musicians, and the community of inquiry the orchestra. However, upon closer inspection, the two metaphors vary slightly as to what is being guided by the conductor. As Lipman himself uses the making of music as a metaphor, this seems like an obvious place to explore the relationship between teacher and attending to the procedures of inquiry further.

It is noteworthy that Lipman uses a number of metaphors to describe the Community of Inquiry. However, his likening the thinking necessary in a Community of Inquiry to chamber music is most interesting in light of Goethe's description of

chamber music as 'four rational people conversing', which recurs in descriptions and analyses of chamber music compositions.[3] Playing chamber music requires both musical and social skills which are different from the skills required in an orchestra of playing solo. Of particular relevance is that chamber music is not led by a conductor, so the musicians are responsible for embellishing on the music script, taking the lead from others and contributing when appropriate. Turning to Lipman (1991), he says that the thinking process that underpins the Community of Inquiry "is like a piece of chamber music where all involved must play at the same time judging whether to embellish on the music of the composer" (p.95). The significance of likening the Community of Inquiry to chamber music is not that there is no conductor, and analogously that the teacher has no role to play in the Community of Inquiry, but rather that dialogical inquiry is not aimless conversation for "the process has a sense of direction; it moves where the argument takes it" (Lipman, 2003, p.83). Moreover, it has practical implications when we consider Lipman's broader educational aims of getting people to think for themselves about the central issue in life, and that engaging in open-minded inquiry is an exemplar of democracy in action. Lipman, like Dewey, understood democracy as an associated form of life, and thus emphasised the social dimension of democracy—a kind of deliberative democracy. The Community of Inquiry represents what he describes as "the social dimension of democracy in practice, for it both paves the way for the implementation of such practice and is emblematic of what such practice has the potential to become" (Lipman, 1991, p.249).[4] In other words, "the community of inquiry provides a model of democracy as inquiry, as well as being an educative process in itself" (Burgh, 2003a, p.25). If education is to fit with democracy and support it, what both discourses need to have in common is an interchange of ideas in conversation, and from an educational standpoint, an interchange in which children bring their experiences to the inquiry. But as pointed out previously, this interchange is not merely conversation or discussion, it is dialogical. Dialogical inquiry has procedural rules which are largely logical in nature, but it is also substantive where subject matter is an exchange of ideas and experiences of one mind upon another, and therefore participants must follow the argument where it leads in the dialogue.

Recall in the previous chapter that we looked at the idea of letting the argument lead; there is no one person 'in charge' of the direction of the dialogue but the logic of the argument itself leads the community. While there is a facilitator present (just like there is a composer in an orchestra), the participants must be taken where the argument, or the music, is naturally heading. The idea of letting the argument lead and letting the music lead are intrinsically similar because they are based on the ideas of the participants themselves, hence why the metaphor is so important in highlighting this aspect of the Community of Inquiry. But let us unpack this idea a little further in order to avoid confusion. When Lipman says 'letting the argument lead' he does not mean that a facilitator should completely 'let go of the reigns'. Rather, the argument *is* the facilitator of the direction and students need to attend to what is required by the argument. For example, if inquiry reaches a point where the group needs to clarify a term, they need to attend to this aspect of the inquiry rather than continue. The argument, in this case, requires that in order to continue the group

needs to digress for a moment into conceptual analysis. The teacher as facilitator may also be required to point to this need. Hence, Gardner's fear that Lipman's principle of 'letting the argument lead' could be misunderstood to mean that students pursue any or all ideas that come into their heads. While creative thought, or the generation of ideas, should be valued in an inquiry, it must be balanced by a level of rigor and self-reflection. The teacher must facilitate a level of quality from the students in terms of philosophical progress, rather than simply exploring ideas. Again, this highlights the difference between dialogue and mere conversation.

A chamber orchestra aims at performing and interpreting a piece of music and so inevitably creates something new with each performance. Similarly, no two inquiries are likely be the same as the participants may generate different ideas that would require analysis. In chamber music, the musicians have the ability to embellish on the written music based on the contributions of others. When one musician feels the need to embellish on the melody, the other musicians follows as if they are in a musical dialogue, which could lead to further embellishment. Goethe describes the process of producing chamber music as 'rational people conversing' (Stowell, 2003). Keeping this aspect of chamber music in mind, the metaphor becomes useful for emphasising community, through its focus on a collaborative approach to thinking, or performing a piece of music. Because each musician in the production of chamber music must work together closely, this is an inherently collaborative activity. This also illustrates that the different dimensions of thinking are not easily separated; an element of inquiry that reflects a creative process of letting the argument lead is also reliant on the participants to take the lead from each other, which requires making musical judgment collaboratively but keeping in mind the original score.

While Lipman uses the production of music as a means to illustrate the very process of community of inquiry, interestingly two researchers, Nigel Morgan and John Cook (2008), have explicitly used Lipman's community of inquiry as a framework for teaching undergraduate music in their tertiary tutorials. They claim that Lipman's model of dialogue reflects the way that music is constructed; that is, the characteristics of Lipman's community of inquiry are like those required in composing and playing music collaboratively. They are:

- listening to one another with respect
- building on each other's ideas
- challenging one another to supply reasons for otherwise unsupported opinions (and musical statements – interpretative or composed)
- assisting each other in drawing inferences from what has been said (and played)
- seeking to identify one another's assumptions

The effective use of the principles of the Community of Inquiry as an approach to teaching music further strengthens Lipman's analogy.

Letting the argument lead is at the very heart of divergent thinking. It allows for the generation of new ideas, where the dialogue requires it. I acknowledge, like Lipman did, that this also includes the application of critical judgment. However, letting the argument lead is inherently a creative process because participants

scaffold on one another's ideas, and its facilitation requires an understanding of when to bring critical rigor to the inquiry. I will address the idea of creative thinking as generative thinking in the following chapter. For the moment I reiterate that creative thinking concentrates on the generation of ideas and meaning making, and that creative thinking and critical thinking are inseparable insofar as critical thinking is necessary to and brings forth the production of creative ideas. Creative thinking would ensue unbridled without critical thinking to instil some rigor to keep the inquiry on task, and to not unnecessarily diverge from the initial focus of the inquiry.

Lipman stresses that the Community of Inquiry is an ideal educational setting for multi-dimensional thinking. His analogy clearly points to both the social and cognitive aspects of thinking, and therefore could be said to be exemplary of multi-dimensional thinking. However, while it does act as a general description of multi-dimensional thinking, specifically it draws attention to the creative component of inquiry. Put another way, the analogy is indicative of creative thinking as an interconnected component of multi-dimensional thinking.

The Pedagogical Dimensions of Socratic Dialogue

The hourglass is the most frequently used metaphor to describe the process of Socratic Dialogue. In a process of refining and abstracting, the dialogue moves in a direction aimed at narrowing the question and definition down to then apply it in a general context. As Boele (1998) explains the dialogue begins wide with a general question, then it is narrowed down to find a core statement which focuses the relevant part of the example. This is the point of the hourglass that then may be widened through the application of criteria and other suppositions. This narrowing down of the question to a specific definition to be applied to the general is seen by the proponents of Socratic Dialogue as the source of great understanding between participants. They stress that it is not compromise that is strived for in this instance, but consensus, where all understand each other and find agreement.

Let us look at the hourglass as it is represented in Socratic Dialogue (Kessels, 2001, p.67):

Question

Example

Judgments

Rules

Principles

You can see that process of dialogue reflects directly the shape of an hourglass. Through the use of regressive abstraction participants use a specific personal

experience to explore a philosophical concept where the hourglass gets narrowed down to a core statement. In order to test its soundness, the group then moves from narrowing the concept down to applying it to a wider range of examples where we see the hourglass widen.

The group begins in the widest part of the hourglass with a general question being asked. It is the widest point of the hourglass because it is from here that the question is narrowed down to a conclusive definition. Kessels (2001) notes that this is the process of *elenchus*, where 'breaking down' previous conceptions is paramount in order to reach a core statement. This occurs in a process of narrowing down towards the waist of the hourglass. Deciding on a concrete example is the next step down in the hourglass, which is where the concept is narrowed down further by drawing it to one particular example. The hourglass narrows as a concrete example is taken, and we "dig into it, go 'back' to the concept that is presupposed, and try to analyse this concept" (Boele, 1998, p.51). This leads to the general formulation of statements. We now enter into the narrowest part of the hourglass wherein "these statements are 'abstracted' from the concrete example" (p.51). At the very narrowest part of the hourglass, the group can find a core statement that sums up their explorations of the concept thus far. The rule is then tested through various other unused examples and then the group must think of further counter-examples to refute their definition. This process sees the hourglass moving from narrowing down to a process of broadening in order to come to as close as a universal statement as possible by testing it against multiple examples. The hourglass returns to its widest point again after narrowing and then expanding when the group has found a principle to apply to the concept in question. At this point the group should have reached consensus and the hourglass can, for the time being, go no wider.

The hourglass can also be applied in a literal sense as a timekeeper to indicate Socratic Dialogue as a careful process that takes time. The sessions are most useful over a day or a couple of days, but have successfully been modified to run over one session, or most conducive, over a couple of sessions involving one topic. This time enables the group to take care to examine all arguments and to make sure that each person truly understands the others. This period of time is necessary for the arrival at consensus. Boele (1998) points out that difference of opinion is the key to deeper understanding, but if we consider these differences "only as an annoying delay, we have the wrong expectations with regard to a Socratic Dialogue" (p.51). Students, he says, are surprised to find that consensus is possible if the time and care is given to truly understand each other; a "real consensus in a heterogeneous group of people" (p.57), whereby the group come to a new understanding.

The pedagogical dimensions are clearly illustrated in Nelson's analogy; as an analogy for the pattern of inquiry, and for the period of time and patience that is required in a Socratic Dialogue. While there is undoubtedly a concentration on critical thinking there is also a concentration on the interplay between listening and speaking in regard to questions and answers. Thus, the experience of participating in Socratic Dialogue as a method for reaching solutions is at the same time a learning process and a way of understanding thinking as inquiry.

Garrett draws parallels between the beginning of the Bohmian dialogue and a cocktail party. As the cocktail party begins people stand idly together and gradually conversations begin that engages them. There is no set agenda at a cocktail party, and likewise in the dialogue. In the kind of setting that Bohm recommended such conversations will eventually lead to genuine dialogue. Garrett also describes the process of dialogue as a game of ball that one might play with a dog. If the ball is thrown, the dog brings it back in much the same way as a person contributes an idea in a dialogue; it is the assumption that others will engage with that contribution. But it is Bohm's metaphor of a collective dance of the mind that is most insightful. As Bohm (1991) puts it, "The spirit of Dialogue is one of free play, a sort of collective dance of the mind that, nevertheless, has immense power and reveals coherent purpose." The free flowing movement of such a dance is meant to illustrate a movement between the mind and body, thought and feeling, in order to open the way to creative change. Just like dancing, in a dialogue participants become aware of their own movement in relation to others (in this case, their own thinking in relation to the group).

The metaphor of dialogue as a collective dance of the mind illustrates also an awakened awareness not just of cognition but its connection to bodily awareness. As Bohm (1991) puts it:

> We can be aware of our body's actions while they are actually occurring but we generally lack this sort of skill in the realm of thought. For example, we do not notice that our attitude toward another person may be profoundly affected by the way we think and feel about someone else who might share certain aspects of his behavior or even of his appearance. Instead, we assume that our attitude toward her arises directly from her actual conduct. The problem of thought is that the kind of attention required to notice this incoherence seems seldom to be available when it is most needed.

So the physical awareness of a dance is analogous to the mental awareness that participants need to have when engaging in dialogue together. If we engage in self-reflection we may be able to better understand how our thought acts as a system. If we do this, we can uncover some of the assumptions that we hold as belief. But this must occur in a dialogical setting where we can be self-reflecting by genuinely listening to others. As in a dance, we can make contributions and also understand the contributions of others. By listening to one another, we will sustain a dialogue in much the same way as being aware of the movement and 'togetherness' of dancing.

In sum, by giving attention to the overall process that flows from thought and feeling and how they play out within the group, Bohmian Dialogue can lead to a new kind of coherent, collective intelligence. As pedagogy Bohm offers a conception of dialogue as an active multi-layered and complex process of interaction between participants that enables the exploration of assumptions and communication in a joint quest for meaning.

DIALOGUE AS CRITICAL, CREATIVE AND CARING THINKING

Dialogue requires thinking. But what is thinking? As mentioned, there is a substantial amount of research on thinking that comes from the disciplines of philosophy and psychology. Philosophers generally have regarded the mind as the place where reasoning happens, and that the cultivation of reason is essential for critical thinking and the generation of ideas in order to solve problems that take place in a social context. Studies on the mind are by-and-large the domain of psychologists, particularly cognitive psychologists. While there is much room for error with regards to understanding children's development and thinking, philosophers and psychologists generally agree that thinking involves critical and creative aspects of the mind and that language has a central role to play in developing a child's understanding. To what degree and to how it might be explained is the cause for further empirical investigations. What is clear, however, is that intellectual abilities derive not only from what we have inherited biologically but that they are activated by social experience, education, and family and cultural environment. The scientific debates on social (or inter-personal) intelligence and the effects of argumentation on intellectual and social development notwithstanding, the theories of Peirce, Dewey and Vygotsky (discussed previously) together offer a plausible account of the central role of language to thinking, knowledge as socially constructed through an interactive process of intra-personal and inter-personal relationships, and the role of communal engagement in inquiry in making meaning from the world. To that effect we need to concentrate on the relationship between the critical and creative dimensions of thinking and the social context within which it occurs, which requires, among other things, the ability to think ethically, affectively, normatively, appreciatively and to participate in society. That is to say, the role of caring thinking needs to be put into the equation alongside critical thinking and creative thinking. Therefore, in this final section I will point to the relationship between critical, creative and caring thinking in all three models of dialogue in order to provide a framework for discussions in the chapters to follow.

The Community of Inquiry: Multi-dimensional Thinking

Multi-dimensional thinking or complex thinking are terms used to describe the Community of Inquiry, conceived of as having three dimensions: critical, creative and caring thinking (Lipman, 2003; Splitter & Sharp, 1995; Burgh, Field & Freakley, 2006). Creative thinking is seen as the generating and building of ideas, critical thinking as exploring concepts, reasoning, evaluating and concluding, and caring thinking as the skills required for being a member of the learning community and the process of inquiry. To explain the relationship between critical thinking and creative thinking, Lipman uses the analogy of a pilot controlling a plane. Creative thinking is like the acceleration and critical thinking is the careful application of the brakes. While the plane requires acceleration to move forward, in order to keep on course and have an element of control, the pilot must apply the

brakes every so often to keep the plane balanced. This analogy is supposed to show that critical and creative thinking work in concert together. In addition Lipman (2004) concedes to the importance of caring thinking as a prerequisite to higher-order thinking which he views as not solely limited to the cognitive domain but as a cognitive-affective relationship. Without emotions thinking would be devoid of a values component, and without this component genuine inquiry would not be possible, for "inquiry is generally social or communal in nature because it rests on a foundation of language, of scientific operations, of symbolic systems, of measurements and so on, all of which are uncompromisingly social" (p.83). Thus, for Lipman inquiry is thinking in a community which requires not only discovering, inventing, and connecting, but also *experiencing relationships*. This necessitates caring thinking. Caring thinking, he says, allows us to focus on that "which we respect, to appreciate its worth, to value its value" (p.262). However, according to Sharp (2004), Lipman does not emphasise caring thinking to the extent of the other dimensions. She points out that while he does explore the nature of caring thinking in relation to critical and creative thinking, it is not given the same focus throughout his curriculum. Perhaps if he did give as much attention to caring thinking his analogy may have been extended to include the pilot's care for the passengers on the plane and for the process of flying itself that may motivate the process of acceleration or braking. I will deal with caring thinking in more detail on Chapter 6, where I will argue for a conception of caring thinking as *connective thinking*.

Lipman cannot be accused of not giving prominence to creative thinking, as it is a vital component of the Community of Inquiry. The idea that the argument should dictate the direction of inquiry is itself a creative process as it enlists multiple dimensions of thinking, as well as requiring a level of inventiveness and innovation. Because the outcome of the inquiry cannot be predetermined, no two inquiries can be the same. The teacher has a responsibility to allow for the natural progression to unfold which requires a balance between enlisting both creative thought in order to explore new ideas and generate alternatives, and critical rigor to avoid faulty reasoning and to develop criteria. A level of autonomy is required on the students' part; the thoughts must come from their own interests, which is an inherently a creative process. This leads us back to Lipman's analogy of the Community of Inquiry as chamber music. Each musician must work together, but it is the music (or the argument) that must be facilitated by the musicians (or participants in dialogue).

Lipman's emphasis on creative thinking cannot be overestimated. This is evident in his understanding of the Community of Inquiry as a productive pedagogy. It requires participants, guided by the teacher as facilitator and co-inquirer, to generate their own ideas and thinking. It is also evident in the epistemology of the Community of Inquiry as reflective equilibrium. Its outcome is the reconstruction or production of knowledge. By engaging in dialogue, the participants are engaged in a collaborative and cooperative mutual inquiry working together in creating meaning, where "disequilibrium is enforced in order to compel forward movement" (Lipman, 2004, p.87). Like chamber music, the

dialogue is guided by the contributions of each of the participants and therefore involves the interchange of ideas to give it a sense of direction, rather than conforming to the formal structures of existing disciplines which have their own assumptions.

> A dialogue that tries to conform to logic, it moves forward indirectly like a boat tacking into the wind, but in the process its progress comes to resemble that of thinking itself. Consequently, when this process is internalized or introjected by the participants, they come to think in *moves* that resemble its *procedures*. They come to think as the process thinks. (p.21)

This passage suggests that a Community of Inquiry is more than following the dictates of critical thinking or logic and reason. Lipman, as we have seen, emphasises the Community of Inquiry, and by implication a dialogue, as multi-dimensional thinking. However, the productive element of inquiry cannot be ignored; that is, it requires imagination and the generation of ideas. These are fundamental components of creative thinking, which, as I have already noted, are given much greater attention in Lipman's writing than in Nelson's or Bohm's. It could, therefore, be said that Lipman's analogy illustrates the creative component of guiding inquiry, which brings together in harmony all three dimensions of thinking.

In sum, the epistemology of the Community of Inquiry is reflective equilibrium, understood as fallilbilistic, not absolute. This is why self-correction (critical thinking) and the maintenance of the equilibrium (caring thinking) are integral component of inquiry. In turn, emphasis on self-correction and maintaining equilibrium demands constant remaking, improving, revising, and looking for new ways of maintaining the equilibrium (creative thinking).

Socratic Dialogue: Thinking Critically

Socratic Dialogue, depicted as an hourglass, clearly indicates critical thinking, a process of coming to consensus about a definition or conclusion and the application of that definition or conclusion to the wider context. Bernard Roy (2001) says of Socratic Dialogue:

> The graphic representation of an hourglass is often used to represent the structure of these [Socratic] dialogues: through various stages of consent and dissent, as many individual stories as there are participants are condensed and funneled down to a core statement, the comprehension of which is expanded so as to yield as close to a universal definition as it is possible to reach. (p.232)

As discussed previously, the various steps in Socratic Dialogue represented in the hourglass, and described by Nelson as an epistemology of regressive abstraction, bring participants through a process of narrowing down and applying criteria. Boele (1998) argues that the rigor required by the process of narrowing down to consensus is where the dialogue gains its depth. If participants have arrived at a

definition, then they will all have come to agreement based on a common understanding.

By putting regressive abstraction at the core of Socratic Dialogue, it could be construed that Nelson and his followers were concerned less with the multi-dimensional aspects of thinking or with thinking as situated within a community. However, Socratic Dialogue unavoidably enlists creative and caring thinking, simply because it encourages ordinary human reflection in a dialogue setting. For example, the generation of counterexamples or making distinctions requires creative thinking. Also, being a participant in the dialogue makes the process a social one, and therefore employs caring thinking. It is a cooperative activity seeking to explore philosophical questions and to gain understanding through the exploration of concrete experiences chosen by the group for detailed analysis. By engaging in the inquiry process together through thoughtful and reasonable conduct, participants are afforded the opportunity to improve their reasoning skills and enhance self-confidence, as well as grasp the moral perplexities of everyday life. Nevertheless, all of these are outcomes of regressive abstraction, which makes Socratic Dialogue by-and-large a dialogue governed by the rules of logic, and therefore a model of dialogue as critical thinking.

Bohmian Dialogue: Awakened Attentiveness

Bohm's approach to dialogue is multi-dimensional, but foremost his concern is not with the improvement of thinking, but with inquiry as socio-therapy. Firstly, the idea of dialogue as meeting without an agenda in order to create a free space for the generation of ideas or for something new to happen identifies the dialogue as a creative space. Secondly, the process of uncovering assumptions through suspension of judgment makes the dialogue self-reflecting and self-correcting, which can be identified as the critical dimension. Thirdly, and I think what defines Bohmian Dialogue, his concern with connectivity and the integral relationships of parts to the functional whole attests to caring thinking. Bohm proposed that in the collective free space created by dialogue, participants could learn about thought through suspending their habit of defining and solving problems, and instead attending to thought itself—a process he called collective proprioception or awakened awareness. Through an awakened awareness participants gain insight experienced as mirroring back of the content of thought and of the not so apparent, dynamic structures that govern it. Put another way, participants in a group come to understand that thinking is a complex systemic process, which includes cognition, body, emotions, feelings, and reflexes, and that by paying attention to thought the fragmentation of our socially conditioned thinking is revealed, creating opportunities for making new psychological (intra-personal) and social (inter-personal) connections. The notion of connectivity is nowhere more clearly illustrated than in Bohm's metaphor of the dialogue as a dance of minds. The dance illustrates the movement that is inherent in an inquiry process. Whereas in a dance people must be mindful of the way their movements

impact on others, in the dialogue the process is self-reflective with awareness on the collaborative nature of thought. Due to the dialogue being dependent on the contributions of the participants to engage in meta-dialogue, caring for the process of the dialogue is of paramount importance. Further evidence of Bohm's attention to caring thinking is evidenced by his emphasis on the relationship between participants in the dialogue as having an impersonal fellowship. While he does not make this explicit, it is caring thinking insofar as the participants share an authentic trust and openness in the process of the dialogue (socio-therapy) rather than an emotional connection or typical conventions of familiarity (psychotherapy).

In addition to concentrating on connectivity, caring thinking is also displayed in the reliance on trust shared by the participants. For example, Bohm understood that in order to sustain group dialogue participants inevitably will encounter varied stages of inquiry that bring moments of dissonance, anxiety and conflict, especially upon their first encounter with a problematic situation. At the outset of the dialogue, which has neither a presupposed goal nor an agenda, participants must attend to 'that which needs to be said', which requires them to be open to their own prejudices and habituated thought as well as that of others (Reeve, 2005). It is Bohm's view that the topic of inquiry needs to be relevant and applicable to the participants' own lives, and therefore must come from the whole group. Put another way, finding 'that which is meaningful' first, before the actual dialogue, is as important as the dialogue itself. Group experience gradually leads to increasing coherence, whereupon a level of collegiality is attained (as an impersonal fellowship).

SUMMARY

We have now begun our exploration into the development of Socratic pedagogy. For Bohm it is the recognition that the experience of dialogue is more important than the content being discussed that distinguishes his experiment with communication from the more Socratic oriented dialogues favoured by Lipman and Nelson. However, implicit in Bohm's dialogue is the Socratic notion of scholarly ignorance. By suspending judgments and assumptions Bohm's intention was for the participants to experience that their previous claims to knowledge are grounded in assumptions, unwarranted assertions and contestable beliefs and values. So, while Lipman's and Nelson's dialogues emphasis the relationship between *elenchus* and *aporia*, Bohm adds the missing ingredient necessary for Socratic pedagogy. Put another way, Bohm highlights the importance of the metaphorical self-stinging ray in dialogue.

Critical, creative and caring thinking are important dimensions crucial to successful dialogue. In the next three chapters we will address all three types of thinking and how they contribute to Socratic pedagogy. I identify what is central to each of these dimensions of thinking, using the terms generative, evaluative and connective thinking to illustrate the multi-layered and complex process of interaction in multi-dimensional thinking and their relationship to my framework

for Socratic pedagogy, which has a distinct pattern of inquiry that moves between critical and creative phases.

NOTES

[1] Scholars have tried to identify the early Platonic dialogues as containing *elenchus* and *aporia* and the later as largely dogmatic. However, my purpose is not to advance Platonic scholarship on the nature of the Socratic Method, nor is it to produce a true account of what is true of the historical Socrates.

[2] See Splitter and Sharp (1995); Portelli (1989); Johnson (1984); Santi (1993).

[3] See Bashford (2003).

[4] See also Lipman, Sharp & Oscanyan (1980), Lipman (1988, 1991).